

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-51. (Canceled)

52. (Currently amended) A method for controlling entry of a flavivirus into a cell, the flavivirus exhibiting a flavivirus envelope protein, the flavivirus envelope protein comprising a domain III of the flavivirus envelope protein, the method comprising administering to the cell an agent that functionally interfering with the binding of the domain III of the flavivirus envelope protein to a flavivirus receptor protein, wherein the agent comprises a polypeptide having an amino acid sequence that exhibits at least 80% sequence similarity to amino acids 350 to 390 of a flavivirus envelope sequence as set forth in SEQ ID NO: 21, and wherein the flavivirus receptor protein is one of an integrin and a neurotensin receptor.

53. (Currently amended) The method of claim 52, wherein the domain III ~~has~~ comprises a sequence that is substantially homologous to ~~SEQ ID NO: 20 or~~ SEQ ID NO: 21.

54. (Canceled)

55. (Withdrawn) A method for treating a flavivirus infection in a vertebrate, the flavivirus exhibiting a flavivirus envelope protein, the flavivirus envelope protein comprising a domain III, the method comprising:

administering to the vertebrate a pharmaceutically effective amount of an agent functionally inhibiting the domain III of the envelope protein of the flavivirus.

56. (Withdrawn) The method of claim 55, wherein the domain has a sequence substantially homologous to SEQ ID NO: 20 or SEQ ID NO: 21.

57. (Withdrawn) The method of claim 55, wherein the agent is a functional blocking antibody against the domain III.

58. (Withdrawn) The method of claim 55, wherein the agent is a competitive ligand of domain III.

59. (Withdrawn) The method of claim 55, wherein the flavivirus is a member of the Japanese encephalitis serocomplex.

60. (Withdrawn) The method of claim 59, wherein the flavivirus is West Nile Virus.

61. (Withdrawn) The method of claim 55, wherein the vertebrate is a human being.

62. (Withdrawn) Pharmaceutical composition for the treatment of a flavivirus infection in a vertebrate, the flavivirus exhibiting an envelope protein comprising a domain III, the pharmaceutical composition comprising:

a pharmaceutically effective amount of an agent functionally inhibiting the domain III of the envelope protein and a pharmaceutically acceptable carrier, vehicle or auxiliary agent.

63. (Withdrawn) The pharmaceutical composition of claim 62, wherein the interfering agent is a functional blocking antibody against the domain III.

64. (Withdrawn) The pharmaceutical composition of claim 62, wherein the interfering agent is competitive ligand for the domain III.

65. (Withdrawn) The pharmaceutical composition of claim 62, wherein the interfering agent is a functional sequence substantially homologous to SEQ ID NO: 20 or SEQ ID NO: 21.

66. (Withdrawn) A method for inducing immunity to a flavivirus in a vertebrate susceptible to infection of the flavivirus, the flavivirus exhibiting an envelope protein comprising a domain III, the method comprising:

administering to the vertebrate an immunogenic amount of a polypeptide comprising the domain III of the envelope protein of the flavivirus.

67. (Withdrawn) The method of claim 66, wherein the domain III comprises a portion having a sequence substantially homologous to SEQ ID NO: 20 or SEQ ID NO: 21.

68. (Withdrawn) The method of claim 66, wherein the polypeptide comprises sequence substantially homologous to SEQ ID NO: 20 or SEQ ID NO: 21.

69. (Withdrawn) The method of claim 66 further comprising the step of diagnosing the flavivirus exhibiting an envelope protein domain III, wherein the diagnosis is accomplished using:

at least one agent able to bind to the domain III associated with an identifier; and
at least one reagent able to detect the identifier.

70. (Withdrawn) A vaccine for a flavivirus, the flavivirus exhibiting an envelope protein comprising a domain III, the vaccine comprising, as an active agent, a polypeptide comprising the domain III of the envelope protein of the flavivirus.

71. (New) The method of claim 52, wherein the flavivirus is selected from the group consisting of Japanese Encephalitis Virus, West Nile Virus, St. Louis encephalitis virus, Murray Valley encephalitis virus, Dengue virus and Kunjin virus.

72. (New) The method of claim 52, wherein the flavivirus receptor protein is an integrin.

73. (New) The method of claim 72, wherein the integrin comprises at least one subunit selected from the group consisting of integrin subunit α V, integrin subunit β 3 and integrin subunit β 5.

74. (New) The method of claim 52, wherein the flavivirus receptor protein is a neurotensin receptor.

75. (New) The method of claim 52, wherein the agent is a ligand of the flavivirus receptor protein.

76. (New) The method of claim 75, wherein the ligand competes with the flavivirus envelope protein domain III for the binding of the domain III of the flavivirus envelope protein to the flavivirus receptor protein

77. (New) The method of claim 52, wherein the agent comprises a polypeptide having an amino acid sequence that exhibits at least 85% sequence similarity to amino acids 350 to 390 of a flavivirus envelope sequence as set forth in SEQ ID NO: 21.

78. (New) The method of claim 52, wherein the agent comprises a polypeptide having an amino acid sequence that exhibits at least 90% sequence similarity to amino acids 350 to 390 of a flavivirus envelope sequence as set forth in SEQ ID NO: 21.

79. (New) The method of claim 52, wherein the agent comprises a polypeptide having an amino acid sequence that exhibits at least 95% sequence similarity to amino acids 350 to 390 of a flavivirus envelope sequence as set forth in SEQ ID NO: 21.

80. (New) The method of claim 52, wherein the agent comprises a polypeptide having an amino acid sequence that exhibits at least 98% sequence similarity to amino acids 350 to 390 of a flavivirus envelope sequence as set forth in SEQ ID NO: 21.

81. (New) The method of claim 52, wherein the agent comprises a polypeptide having an amino acid sequence that exhibits complete identity to amino acids 350 to 390 of a flavivirus envelope sequence as set forth in SEQ ID NO: 21.